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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,802	12/22/2005	Yasushi Washio	SHIGA7.35APC	1118

20995 7590 12/27/2007

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EXAMINER	
LE, HOA VAN	
ART UNIT	**PAPER NUMBER**
1795	

NOTIFICATION DATE	DELIVERY MODE
12/27/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/561,802	WASHIO ET AL.	
	Examiner	Art Unit	
	Hoa V. Le	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date —.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

This is in response to Papers filed on 01 November 2007.

I. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al (5,985,525) considered in view of Anzures et al (6,900,003).

Sato et al disclose, teach and suggest a developer and its use. The composition comprising an organic quaternary ammonium base as claimed. Please see the whole disclosure of each of the applied references, especially in Sato et al at col.2:41-64 and 5:61 to 6:11.

Sato et al do not cited an alkali metal salt of a diphenyl oxide sulfonic containing group. However, it is known in the art to use an alkali metal salt of a diphenyl oxide containing group for the advantage of reducing residue in a

developing solution and/or on a developing substrate (col.5:53-59). Evidence, can be seen in at least Anzures et al at col. 5:66 to 6:29.

Since the above applied references are generally related to developers, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use, include or cited an alkali metal salt of a diphenyl oxide sulfonic containing group for reasonable expectation of obtaining the advantage of reducing residue in a developing solution and/or on a developing substrate as disclosed, taught and suggested in Anzures et al.

Applicant's arguments filed 01 November 2007 have been fully considered but they are not persuasive.

Applicants point out that Sato et al try to avoid a "metallic contamination" in a "semiconductor" (col.1:24-29) industry because the metallic contamination "can cause undesired electrical conduction" as that disclosed in the instant application on page 5, lines 21-23. The arguments are not filed to be convincing since the instant claims have not been excluded a use of the claimed composition in a semiconductor industry as disclosed in the instant specification on page 6, lines 3-4 with "unlike the filed on the semiconductor" as urged.

The record shows that since the instant claims have not been limited to exclude a use of the instant claims in semiconductor industry as disclosed and urged, no other field of an application other than semiconductor industry has been considered or searched.

Applicants urge that Sato et al developing composition contain an ammonium salt of alkyl diphenyl ether sulfonic acid it is correct. Applicants further urge that the instantly claims exclude an ammonium salt of alkyl diphenyl ether sulfonic acid. It is not found to be convincing. The language "comprising" in the claims is open to include an additional chemical ingredient.

II. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anzures et al (6,900,003) considered in view of Sato et al (5,985,525).

Anzures et al disclose, teach and suggest a developer and its use. The composition comprising an alkali metal salt of a diphenyl oxide containing group as claimed. Please see the whole disclosure of each of the applied references, especially in Anzures et al at col. 5:66 to 6:29.

Anzures et al do not cited an organic quaternary ammonium. However, it is known in the art to use an organic quaternary ammonium to obtain an alkaline solution to remove a soft portion of a layer in the art. Evidence, can be seen in

at least Sato et al at col.2:41-64. Sato et al also disclose, teach and suggest a method of using the composition at least at col.5:61 to 6:11. No ammonium salt of alkyl diphenyl ether sulfonic acid is suggested from the applied secondary reference with respect to Sato et al.

Since the above applied references are generally related to developers, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use, include or cited an organic quaternary ammonium for reasonable expectation of obtaining an alkaline solution to remove a soft portion of a layer as disclosed, taught and suggested in Sato et al.

Applicant's arguments filed 01 November 2007 have been fully considered but they are not persuasive.

Applicants state that the applied secondary reference with respect Sato et al for the use of (1) an organic quaternary ammonium and (2) an ammonium salt of alkyl diphenyl ether sulfonic acid. The record shows that there has been no suggestion of an ammonium salt of alkyl diphenyl ether sulfonic acid is suggested from the applied secondary reference with respect to Sato et al.

III. Tanaka et al (5,543,268) and Tanaka et al (6,329,126) have about the same teachings and suggestions as those in the above applied Sato et al. They are cumulative.

Applicant's arguments filed 01 November 2007 have been fully considered but they are not persuasive.

Applicants point out that Sato et al and its equivalent with respect to Tanaka et al (5,543,268) and Tanaka et al (6,329,126) to try to avoid a metallic contamination in a semiconductor industry because the metallic contamination "can cause undesired electrical conduction" as that disclosed in the instant application on page 5, lines 21-23. The arguments are not filed to be convincing since the instant claims have not been excluded a use of the claimed composition in a semiconductor industry as disclosed in the instant specification on page 6, lines 3-4 with "unlike the filed on the semiconductor" as urged.

The record shows that since the instant claims have not been limited to exclude a use of the instant claims in semiconductor industry as disclosed and urged, no other field of an application other than semiconductor industry has been considered or searched.

VI. Applicants point out that there are some advantages in Examples 4, 9, 10 and Comparative Example 1. They have been carefully considered but have and are given little value since they are not reasonably commensurate in scope with those broadly claimed embodiments.

(1) Since applicants specifically relied on the showings in Examples 4, 9, 10 as compared to Comparative Example 1 for the patentability of the instant claims, an allowed or patented claim not be read in light of each and all limitations in Examples 4, 9 and 10 with all respect to chemical ingredients or their adjacent homologue, their amounts and obviously about their amounts (reasonably + and – of about 2% by mass), conditions of making and processing as specifically relied on for the patentability of the claims.

(2) The instant claims have not been reasonably read on the use of about 2.38% by mass of tetramethylammonium hydroxide (with "tetetramethylammonium" on page 10, line 18 being typographical error, a correction is requested and required) or its adjacent homologue or obviously about the tested amount.

(3) The instant claims have not been reasonably read on about 3000 ppm of the anionic surfactant in Examples 4, 9 and 10 or its adjacent homologue or obviously about the tested amount.

(4) It would like to see results to be carried out with:

(i) a semiconductor device of about 173 nm ion implant technology with a developing composition about 0.000 000 001% by mass of an organic quaternary ammonium and about 99.000 000 009% by mass of the claimed anionic surfactant of the general formula (I) with R_{1-2} being 18 carbons alkyl R_{3-5} having formula (II) and M being (1) Fe ions and (2) Cu ions for an electrical conduction in the present nanometer semiconductor standard as broadly claimed for the patentability of the broadly claimed embodiments.

(ii) a shop-sign printing plate with a developing composition about 0.000 000 001% by mass of an organic quaternary ammonium and about 0.000 000 001% by mass of the claimed anionic surfactant and the remaining amount being water for a dissolution as broadly claimed for the patentability of the broadly claimed embodiments.

For the above reasons, the showings are not reasonably commensurate in scope with the broadly claimed embodiments and are reasonably insufficient

and are not reasonably complete as compared to the broadly claimed embodiments.

V. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

VI. Applicants' prior art submission filed on 24 August 2007 has been considered to the extent of the English language as provided. Cited Nos. "10"

and "11" are not considered because there is no English language of a pertinent portion being provided.

VII. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa V. Le whose telephone number is 571-272-1332.

The examiner can normally be reached from 6:30 AM to 4:30 PM on Monday though Thursday and about the same time of most Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526.

Applicants may file a paper by (1) fax with a central facsimile receiving number 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hoa V. Le
Primary Examiner
Art Unit 1752

HVL
12 December 2007

HOA VAN LE
PRIMARY EXAMINER
Hoa Van Le